X63-11445
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INTERNATIONAL SYSTEM OF UNITS

RESOLUTION No. 12

N71-71263

FACILITY FORM 602

(ACCESSION NUMBER) 4 (PAGES) ✓ (NASA CR OR TMX OR AD NUMBER)

(THRU) None (CODE) (CATEGORY)

Translation of "Système International d'Unités. Résolution 12." Comptes Rendus des Séances de la Onzième Conférence Générale des Poids et Mesures, Paris, 11-20 octobre 1960. p. 87 - 88.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
WASHINGTON February 1963

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RECORDS OF MEETINGS
OF THE
ELEVENTH GENERAL CONFERENCE
ON WEIGHTS AND MEASURES

Paris, October 11-20, 1960

INTERNATIONAL SYSTEM OF UNITS

RESOLUTION NO. 12

The Eleventh General Conference on Weights and Measures, Considering:

Resolution No. 6 of the Tenth General Conference on Weights and Measures by which six units have been adopted which are intended to serve as a practical base for a system of measures for international relations:

Length	meter	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	degrees Kelvin	°K
Light intensity	candle	cd

Resolution No. 3 adopted by the International Committee on Weights and Measures in 1956.

The recommendations adopted by the International Committee on Weights and Measures in 1958 concerning the symbols and prefixes to be used in this system for the formation of multiples and submultiples of the units.

DECIDES:

1) The system based on the six basic units above mentioned is referred to as the International System of Units;

2) The international abbreviation of the name of this system is: SI;

3) The names of multiples and submultiples of the units are formed with the following prefixes:

Factor by which the unit is multiplied	Prefix	Symbol	Factor by which the unit is multiplied	Prefix	Symbol
$1,000\,000\,000\,000 = 10^{12}$	tera	T	$0.1 = 10^{-1}$	deci	d
$1,000\,000\,000 = 10^{9}$	giga	G	$0.01 = 10^{-2}$	centi	c
$1,000\,000 = 10^{6}$	mega	M	$0.001 = 10^{-3}$	milli	m
$1,000 = 10^{3}$	kilo	k	$0.000\,001 = 10^{-6}$	micro	μ
$100 = 10^{2}$	hecto	h	$0.000\,000\,001 = 10^{-9}$	nano	n
$10 = 10^{1}$	deca	da	$0.000\,000\,000\,001 = 10^{-12}$	pico	p

4) The units shown below will be used in this system, without prejudice to other units which could be added in the future.

ADDITIONAL UNITS

Plane angle	radian	rad
Solid angle	steradian	sr

SECONDARY UNITS

Area	square meter	m^2
Volume	cubic meter	m^3
Frequency	hertz	H_Z 1/s
Density	kilograms per cubic meter	kg/m^3
Velocity	meter per sec.	m/s
Angular velocity	radians per sec.	rad/s
Acceleration	meters per sec. squared	m/s^2
Angular acceleration	radian per sec. squared	rad/s^2
Force	newton	N $kg \cdot m/s^2$
Pressure (mechanical tension)	newton per sq. meter	N/m^2
Kinematic viscosity	Sq. meter per second	m^2/s
Dynamic viscosity	newton-second per sq. meter	$N \cdot s/m^2$
Work, energy, quantity of heat	joule	J $(N \cdot m)$
Power	watt	W J/s
Electric charge	coulomb	C $A \cdot s$
Voltage, potential difference, electromotive force	volt	V W/A
Electric field intensity	volt per meter	V/m
Electric resistance	ohm	Ω V/A

Electric capacitance	farad	F	$A \cdot s/V$
Magnetic flux	weber	Wb	$V \cdot s$
Inductance	henry	H	$V \cdot s/A$
Magnetic field	tesla	T	Wb/m^2
Magnetic field intensity	amperes per meter	A/m	
Magnetomotive force	ampere	A	
Flux of light	lumen	lm	$cd \cdot sr$
Luminance	candle per sq. meter	cd/m^2	
Illumination	lux	lx	lm/m^2

CUBIC DECIMETER AND LITER

RESOLUTION No. 13

The Eleventh General Conference on Weights and Measures, Considering:

That a cubic decimeter and a liter are not equal but differ by about 28 millionths (.000028).

That the determination of physical dimensions involving measures of volumes are becoming more and more accurate, which makes the consequences of a possible confusion between the cubic decimeter and the liter worse.

INVITES:

The International Committee on Weights and Measures to study this problem and to present its conclusion at the Twelfth General Conference.

RESOLUTION No. 14

Eleventh General Conference on Weights and Measures, Considering:

That all countries benefit from the successful results of the work of the International Committee and of the International Office of Weights and Measures, particularly as illustrated by the report of its President on the activities of this Committee during the period from 1954-1960.

That the development of modern science and technology will be promoted by extending the Metric System through the entire world,